Letters

Scientifically trained allergists

To the editor: Dr. Sim is correct in his assertion that we do not have a scientific understanding of the mechanisms by which commonly encountered synthetic materials produce a variety of symptoms (*Can Med Assoc J* 1982; 126: 225). However, his dismissal of this hypothesis is, in spite of his posture of scientific integrity, distinctly unscientific.

From a scientific standpoint we have the hypothesis that exposure to low-molecular-weight hydrocarbons triggers illness in susceptible individuals. There is a large body of anecdotal data supporting this hypothesis, including the book "Sunnyhill: the Health Story of the 80's",[1] cited by Dr. Sim, and some double-blind scientific studies. Dr. Sim assumes that there are no definitive scientific studies to sustain or deny the hypothesis and then infers that the hypothesis is incorrect. The only valid scientific inference in the absence of definitive studies is that more work needs to be done.

Dr. Sim states that Mr. Small's symptoms of hay fever, heat rash, sleepiness, irritability and loss of energy abated not because he reduced his exposure to specific hydrocarbon inhalants but because he left a stressful job to go into business for himself. Can Dr. Sim produce scientific support for his hypothesis that job stress caused Mr. Small's symptoms? How can Dr. Sim offer a sweeping opinion with such confidence on a patient he has presumably never met or examined? Does he know enough about Mr. Small's history to assert that in these perilous financial times Mr. Small experienced less job stress in beginning a small business than while working for someone else?

Denizens of modern society daily inhale or ingest measurable quantities of formaldehyde, methane, vinyl chloride, organophosphate pesticides, food preservative and colouring agents, benzpyrene, carbon monoxide and nitrous oxides. The hypothesis that this subtoxic exposure accounts for a host of common complaints usually attributed to the "stress of modern life" by medical practitioners at a loss for a diagnosis is an important one that deserves scientific scrutiny by open-minded investigators, not persons who have obviously prejudged the issue.

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CMAJ *tries to publish as wide a selection of letters to the editor as possible. We can accept more letters and publish them more promptly if they are short and convenient to edit. We ask that letters be no longer than two typescript pages (450 words) and be typed double-spaced with wide margins, like a manuscript.*

[We showed this letter to Dr. Sim, whose reply follows.—Ed.]

To the editor: Contrary to Dr. Meggs's claim I have long accepted the hypothesis that exposure to chemicals may trigger illness in susceptible individuals, and as an allergist I have often seen this kind of problem. However, before making such a diagnosis it is essential to rule out other possibilities and establish a cause-and-effect relation even though the underlying mechanism cannot always be determined.

In the book "Sunnyhill: the Health Story of the 80's"[1] Mr. Small related that his disorder was diagnosed as an "ecologic illness" due to exposure to various chemicals, such as exhaust fumes, oil fumes, foam rubber and synthetic rugs, on the basis of subcutaneous provocative and neutralization testing. But several controlled clinical studies have shown such methods of diagnosis and treatment to be ineffective.[2]

A critical review of this book shows there are other more plausible explanations for Mr. Small's symptoms and his subsequent improvement. His summer hay fever symptoms were likely caused by pollens; he responded to therapy with a newly prescribed allergen extract, which was likely more potent and effective than what he had received before. This improvement occurred while he was still living in Toronto, before his escape from urban pollution. His heat rash was likely due to synthetic clothing, which retains heat and often irritates the skin. It is more likely that avoiding synthetic clothing rather than avoiding city pollution prevented the recurrence of his rash. He had difficulty falling asleep at night, likely because of the stress to meet deadlines and his dislike of doing scientific or analytic work. He was then sleepy in the daytime, especially after big lunches. To keep himself awake he drank a lot of tea, which could have contributed to his irritability. Although running one's own business is by no means easy, Mr. Small was good at dealing with social and environmental problems in his new business and was pleased to be able to work at his own pace. With his success he was able to sleep well, did not feel drowsy in the day and did not need to drink a lot of tea. It is more likely that this change in his lifestyle, rather than the move to the country, helped.

There is definitely a need for scientifically trained allergists not only to carry out research but also to properly manage patients with allergy or allergy-related problems.

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Breast cancer in pregnant women

To the editor: Since March 1980 I have treated 13 women between the ages of

25 and 35 years with breast cancer diagnosed either during pregnancy or immediately after delivery. Five had stage III disease, three stage II and the rest stage I. Data from estrogen and progesterone receptor assays were available for 11 of the 13: for 2 of them the results were strongly positive for both receptors; for the other 9 the results were negative for both receptors.

In a maximum follow-up period of 28 months there have been two deaths, at 22 and 26 months respectively after diagnosis; three patients have recurrent disease that is under treatment, and the other eight have either completed a year of adjuvant chemotherapy or are still receiving such treatment.

Among the seven patients with a recurrence are three whose disease recurred in the opposite breast; in one of the three the second tumour was negative for both types of hormone receptor, though the original tumour had been strongly positive for both.

These cases raise certain questions regarding breast cancer that are of concern to me:

- Why have I seen so many cases in the last 2 years in southern Alberta?
- What is the place of adjuvant chemotherapy in this situation, especially in view of the presence of a fetus?

I treated three of the women with melphalan and 5-fluorouracil, giving one course late in the second trimester. The infants were delivered early in the third trimester, and none showed evidence of toxic effects.

- Why have three of the seven recurrences been in the opposite breast, or in these cases is the disease better classified as bilateral breast cancer?
- Is breast cancer increasing in incidence in women under 35 years of age? If so, why?
- Most of the women found the tumour themselves. The delay in diagnosis ranged from a few weeks to over a year in the most recent patient.

It would be interesting to know if other physicians have encountered a similar situation and if their experience with these difficult medical problems has been similar to mine.

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Cyanoacrylates in medicine

To the editor: In their letter on rapid-setting adhesive cyanoacrylates (*Can Med Assoc J* 1982; 126: 227, 228) Drs. Blais and Campbell draw attention to properties of and adverse tissue reactions to these adhesives, which are sometimes used in medicine. They point out that methyl methacrylate is sometimes added to cyanoacrylate preparations to improve handling characteristics and mechanical properties. The complications caused by methyl methacrylate warrant comment.

Methyl methacrylate has been used extensively in orthopedic surgery. Its immediate effects on the patient under anesthesia include hypotension[1-4] and arterial hypoxemia,[3,4] and it has been implicated in cardiac arrest.[5,6] It may also cause delayed hypoxemia — that occurring a few hours postoperatively.[7] In view of the potential hazards of this compound, close monitoring of the patient's vital signs and hydration status is essential when an adhesive to which it has been added is applied.

As Blais and Campbell rightly warn, "the medical use of common industrial and consumer grades of adhesives of largely unknown composition...seems both unwise and unnecessary".

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Sex education: the physician's role

To the editor: In a letter to the editor (*Can Med Assoc J* 1982; 126: 1026, 1031) Dr. Andrew Murray quotes an article by Dr. Carol Nadelson to support his point that "there *is* evidence...that sex education in schools does not help reduce the incidence of teenage pregnancy". I reviewed this particular article and feel that Murray has taken liberty in quoting Nadelson to support his position. In fact, Nadelson's comments support the view of Dr. T. Johnstone, who, in a letter to the editor (1981; 125: 958), stated: "It appears that successful programs need both an educational component and a clinic to provide contraception and individual counselling."

Nadelson's paper also states, in contrast to Murray's position, that "ambivalence towards pregnancy and denial of the possibility that it could occur and inability to take responsibility for contraception point to the need for more comprehensive educational and counselling programs that take psychosocial and developmental factors into account". Nadelson found that only 5% of adolescents cited schools as the primary source of sexual information, compared with 46% who cited friends and 28% who reported parents and relatives as the primary source. Nadelson also indicated that "adolescents who report having had sex information courses at school scored significantly higher on the factual section of the questionnaire". However, Nadelson cautions, this group included girls at a maternity home and mothers' clinic, who were involved in sex education courses. There was considerable variation in what was perceived as a sex education course — "from high school biology with extensive sex information to a mere mention of sexuality in a health course".

A consensus should be sought on appropriate training for physicians dealing with sexual health, a definition of "sex education" and a basic curriculum.

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Smoking and physicians

To the editor: The article by Drs. Paula J. Stewart and Walter W. Rosser (*Can Med Assoc J* 1982; 126: 1051–1054) concludes that informal advice to promote nonsmoking is ineffective. There are, however, other means available to physicians as individuals or as a group that may be more efficacious.

Physicians who smoke should try to stop. A survey sponsored by the American Cancer Society showed that nonsmoking physicians promoted nonsmoking more aggressively than smoking physicians.[1] This obvious conclusion should increase the present trend for physicians to represent a disproportionately small percentage of smokers.[1]

Taxes on cigarettes should be increased. Richard Ebert has described the decrease in gin consumption after heavy taxes were introduced in the 18th century.[2] Medical associations should push for increased taxes to be levied on cigarettes, with the income to be used for cancer research.

Medical associations should also call for a ban on all cigarette advertising.